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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/713,130	Applicant(s) TOMITA ET AL.
	Examiner David N. Werner	Art Unit 2621

-- ***The MAILING DATE of this communication appears on the cover sheet with the correspondence address*** --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _01 April 2010_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _11,12,14-17,19-24,35,49-53,55-58,60-65 and 67-70_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _11, 12, 14–17, 19–14, 35, 49–53, 55–58, 60–65, and 67–70_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _14 November 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action for U.S. Patent Application No. 10/713,130 is responsive to communications filed 1 April 2010, in reply to the Non-Final Rejection of 4 January 2010. Claims 11, 12, 14–17, 19–24, 35, 49–53, 55–58, 60–65, and 67–70 are pending.

2. In the previous Office action, Claims 11, 12, 14–17, 19, 20, 23, 24, 35, 49–53, 55–58, 60, 61, 64, 65, and 67–70 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,111,604 A (*Hashimoto*) in view of U.S. Patent No. 6,148,031 A (*Kato*), U.S. Patent No. 5,987,179 A (*Riek*), and ISO-IEC 11172-1 (MPEG-1). Claims 21, 22, 62, and 63 were rejected under 35 U.S.C. § 103(a) as obvious over *Hashimoto* in view of *Kato*, *Riek*, MPEG-1, and in view of U.S. Patent No. 6,327,423 B1 (*Ejima*).

Response to Amendment

3. Applicant's amendments to the claims have been fully considered. The examiner agrees with the applicant that the amendments are only for clarification and correction and do not materially affect the status of the claims.

Response to Arguments

4. Applicant's arguments filed with respect to the rejections under 35 U.S.C. § 103 have been fully considered but they are not persuasive.

I. *Hashimoto* (pp. 22–23)

Applicant alleges that *Hashimoto* does not disclose the claimed first and second encoding methods, but only a single encoding method. This is incorrect. Regardless, the examiner did not rely on *Hashimoto* to disclose the two modes. "[I]n Hashimoto et al., no clear distinction is made between the various encoding modes for the recorded pictures". *Non-Final Rejection*, pg. 5. *Hashimoto* discloses the use of JPEG, MJPEG, or MPEG codecs (col. 6: l. 65), and discloses "just a still image, the combination of a still image with audio data, and…moving images[1]" (col. 10: ll. 1–4), the key difference between the present invention and *Hashimoto* is not that *Hashimoto* discloses only one encoding method, but that it does not explicitly state that "just a still image" is encoded with a first encoding method as claimed and that the "combination of a still image with audio data" and "moving images" are both encoded with a second encoding method, as claimed.

II. *Kato* (pp. 23–24)

A. Audio

Applicant first alleges that *Kato* "only discloses continuous image taking or still image taking", and not encoding still picture data without audio data and encoding still or moving picture data with audio data as claimed. However, this is moot, since in the Non-Final Rejection, *Kato* was not used to disclose a camera apparatus or encoding

[1] Since the MPEG codec normally multiplexes a video bitstream with an audio bitstream, the "moving images" of *Hashimoto* are considered to encompass a set of images multiplexed with sound. Contrast with the explicit disclaimer of audio multiplexing in the mode in which "just" still images are encoded.

method with optional audio encoding, as claimed, but merely that it was known to provide a camera with two codecs. In the combination of *Hashimoto* and *Kato*, the JPEG codec would be used to encode "just a still image" using the language of *Hashimoto* or as the "first encoding method when capturing still picture data" using the claim language. The MPEG codec would be used to encode "moving images" using language of *Hashimoto* or "moving picture with audio data" using the claim language. The combination of the two references does not yet show that it would be obvious to one of ordinary skill in the art to use the "moving images" or "moving picture with audio data" encoding method to additionally encode "the combination of a still image with audio data", using the *Hashimoto* language or "still picture data with audio data", using the claim language; or that the MPEG codec necessarily can encode "moving picture with audio data".

B. Photographing Means

Applicant next alleges that *Kato* does not disclose encoding a picture signal received from a photographic means, but only discloses re-compressing images taken from a memory after or at the end of image taking. First, this assertion fails to take into account the presence of CCD image pickup device 10 in *Kato*, illustrated in figure 1 along with memory 20. Image pickup device 10 is the claimed "photographing means". Second, a multi-step encoding process for a picture signal including steps of picking up the image from a charge-coupled image pickup device, converting it to a digital signal, temporarily compressing the digital signal according to a first method, temporarily

storing the compressed signal in a memory, and finally re-compressing the temporary compressed signal in a final method, as is the process of *Kato*, is still a process of encoding a picture signal received from a photographing device, as claimed. Lastly, it is not necessary for *Kato* to disclose the claimed encoding of a picture signal from a photographing means as claimed, since in the previous Office action, this limitation was already addressed in the discussion of *Kato*, in which at least the image photographing section 6 was mapped with the claimed photographing means. The discussion of *Kato* in the claim rejections set forth below in this Office action will be clarified to show that the "re-encoding" process of *Kato* is but one step in a complete encoding process starting from image pickup device 10.

III. *Riek* (pp. 24–25)

Applicant asserts that *Riek* discloses "a method and apparatus for encoding a high-fidelity still image in a MPEG bit stream", but not recording audio with the still image. Applicant further states in page 25 that the *Riek* system encodes moving images with audio, and still images without audio, but does not cite where *Riek* discloses selectively encoding audio only when motion images are encoded, or selectively not encoding audio only when still images are encoded. Since *Riek* makes no mention of sound or audio encoding, Applicant's interpretation of *Riek* lacks foundation. Further, *Riek* was not used to disclose encoding still or moving images with or without sound, only that it would be obvious to one of ordinary skill in the art at the

time of the present invention to use a common codec or "encoding method" for both still image and moving image encoding.

IV. MPEG-1 (pg. 25)

Applicant states that MPEG-1 discloses multiplexing video packs and audio packs[2], but not multiplexing still picture data with audio. Applicant states that the video packs of MPEG-1 may only encode moving images, but not still picture data. However, Applicant previously admitted in page 24 that the *Riek* reference discloses "encoding a high-fidelity still image in a MPEG bit stream". From this, it must follow that either Applicant's argument is self-contradictory, stating that it is both possible and not possible for MPEG to encode a still image, or that the *Riek* reference that Applicant characterizes as "encoding a high-fidelity still image in a MPEG bit stream" is inoperable. First, considering the possibility that Applicant is presenting a self-contradictory argument, the argument would necessarily be invalid. See attached essay, Paula Gottlieb, "Aristotle on Non-Contradiction". Second, considering the possibility that Applicant is describing *Riek* as inoperable (and invalid), the examiner is barred from considering this argument. *See* 35 U.S.C. § 282, MPEP § 1701. If Applicant believes that U.S. Patent 5,987,179 A is invalid, the proper remedy is to request a re-examination of that issued patent, not to disparage its teachings in proceedings in another application.

V. Combination

It is respectfully submitted that Applicant's characterization of the combination of references is incorrect. The most accurate combination of references is as follows: *Hashimoto* discloses an encoding system that encodes picture data as " just a still image, the combination of a still image with audio data, and…moving images" (col. 10: ll. 1–4), which explicitly or implicitly correspond with the claimed encoding of still picture data without audio data, still picture with audio data, and moving picture data with audio data, respectively. *Kato* discloses an encoding system that encodes still image data according to a first encoding method, and motion image data according to a second encoding method that uses temporal redundancy of the motion images. *Riek* discloses an encoding system which uses the temporally-redundant MPEG encoding method for both moving images and still images, and so is suitable to be used as the second encoding system of *Kato*, in a special case in which a still image is recorded as repeated motion frames[3]. The MPEG-1 standard makes explicit that MPEG ordinarily multiplexes image data with audio data when it is used as an encoding method. It is respectfully submitted that the proper combination of the four citing references discloses all limitations of the independent claims and does not use impermissible hindsight.

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[2] The *Tanaka* reference was used to show that it was known in the art to multiplex audio and video packs in a 1:1 ratio as well as the 1:6 ratio explicitly discussed in MPEG-1.

[3] Although this is not explicit within the references, an additional advantage of using *Riek* to encode still images is that if a user wishes to associate or display the still image with a sound file, the *Riek* system could be used to repeat a still image frame for the duration of the time needed to play the sound file.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 11, 12, 14–17, 19, 20, 23, 24, 35, 49–53, 55–58, 60, 61, 64, 65, and 67–70 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,111,604 A (*Hashimoto*) in view of U.S. Patent No. 6,148,031 A (*Kato*), U.S. Patent No. 5,987,179 A (*Riek*), and ISO/IEC 11172-1 (MPEG-1 Part 1). *Hashimoto* teaches a video camera.

Regarding claims 11, 35, and 52, figure 8 of *Hashimoto* shows a block diagram of the camera. Image photographing section 6 comprises lens 7, lens opening 8, imaging element 9, and filter 10. The analog input image signal is converted in analog/digital converter 4 and further processed in DSP 11 (column 6: lines 40-61). This is the claimed "photographing means". Audio signals are input into microphone 1 and output through amplifier/filter 2a to analog/digital converter 4 (column 6: lines 18-26). This corresponds with the claimed "audio inputting means". Image data compression/expansion circuit 12 encodes the images from DSP 11 in a format such as JPEG or MPEG (column 6: line 62–column 7: line 2). This corresponds with the claimed "video encoding means" that performs the steps of "encoding the video signal" in the two encoding methods in claims 35 and 52. Figure 11 of Hashimoto et al. illustrates the process for capturing video and information. When the user presses the

shutter button, a first picture with associated audio is captured. Image and audio files are stored in memory card 16, and a relation file is written to link the image and audio files together (column 9: lines 46-54). The relation file may be a container file for "just a still image", "a still image with audio data", or "moving images", (considered to incorporate audio data implicitly, in contrast with "just" a still image without audio data), (column 10: lines 1-8). These three modes correspond with the claimed encoding as "still picture data without audio data", "still picture data with audio data", and "moving picture data with audio data", respectively. Then, *Hashimoto* discloses capturing picture data both with and without audio data, as claimed.

The present invention differs from *Hashimoto* in that in the present invention, two encoding methods exist: a first mode encoding only still image data, and a second mode encoding audio data with still picture data or moving picture data comprising intra I frames and inter P or B frames. However, in *Hashimoto*, no clear distinction is made between various encoding modes for the recorded pictures. In the example given in column 9: line 55–column 10: line 4, audio may be associated with a still JPEG image, or a moving MJPEG image, or an MPEG image (column 6: line 65), which was known in the art at the time the invention was made to incorporate sound data. It appears that the list in column 10: lines 1–4 may disclose three distinct coding modes: a still image without audio; a still image with audio; and a moving image, whereas the present invention presents a unified encoding method for still and moving images with audio.

Kato teaches an image processing system in a digital camera. Regarding claims 11 and 35, in Kato, in a continuous imaging mode, input images are initially

photographed and recorded in real time from image pickup means 12 in an intra mode as a succession of JPEG images, and stored in memory 20 (column 3: lines 41-47). In a still image mode, the input image is recorded in memory 20 as a single JPEG image (column 3: lines 47-53). After recording is finished, system control circuit 26 re-encodes the recorded series of intra images in an inter-frame compression mode (column 3: lines 54-63). The complete process of acquiring image data from pickup means 12, initially recording images as a sequence of still images, temporarily storing the still images, and further encoding the still images in inter-frame mode is a method of encoding moving picture data, as claimed. This system control circuit corresponds with the claimed "controlling means" of claim 11, and the selection of a still image mode or a motion image mode in *Kato* corresponds with the claimed recording mode selection in claims 35 and 52.

Hashimoto discloses a portion of the claimed invention, but not encoding pictures according to two different encoding methods. *Kato* teaches that it was known to encode motion image data in a separate format than still image data. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the camera of *Hashimoto* to encode pictures having a temporal aspect, such as pictures with associated sound, as inter-frame encoded images after initial processing, as taught by *Kato*, since *Kato* states in column 2: lines 16-34 that such a modification would enable the final recording to be achieved with higher compression than with intra pictures alone, while maintaining the ability for a user to record a high-quality still image during the motion image recording process.

The present invention differs from the combination of *Hashimoto* and *Kato* in that in the present invention, a still image recorded with sound is recorded in the same mode containing I pictures, P pictures, or B pictures as motion images recorded with sound, whereas in *Hashimoto*, a still picture recorded with sound is a single JPEG image with an associated audio file. In other words, in the combination of *Hashimoto* and *Kato* alone, the first encoding method would encode still picture data without and with audio data, and the second encoding method would only encode moving picture data with audio data.

Riek discloses a camera that encodes still images in an MPEG bitstream. Regarding claim 1, figure 2 illustrates an embodiment of the *Riek* apparatus. Light is input through lens 12 to CCD 14, which forms images (column 4: lines 15–18). These images are converted to a standard digital format in ISO CCIR601 converter 27 (column 4: lines 35–38). As will be shown below, the images received may be encoded as still images or moving images. A user may switch from recording motion images to recording still images with still select button 22 which causes logic and control unit 32 to encode a still image (column 4: lines 41–50). During a still image mode, a still image stored in frame store 29 from converter 27 is selected for encoding (column 4: lines 41–46), rather than directly from the converter 27. Encoder 30 encodes a still image as a series of zero-motion-vector B frames or an enhanced I frame or P frame followed by a series of B frames, and encoding the first frame at the conclusion of recording the still image as the next I frame (col. 9: l. 22–col. 10: l. 41). These B pictures are encoded entirely with skipped macroblocks, which inherently have zero motion vectors, or

macroblocks explicitly coded with zero motion vectors. *Riek* at col. 10: ll. 53–65. Such a picture, comprising skipped macroblocks, which are copied from a chronologically preceding picture, and motion-compensated with zero motion vectors, is the claimed "P or B picture data" with 0 motion vectors for a entire frame, copied from a chronologically preceding picture. Then, *Riek* discloses the claimed second encoding method which may capture both still picture data and moving picture data, each comprising I pictures and P pictures or B pictures.

Hashimoto, in combination with *Kato*, discloses a majority of the claimed invention except for a single encoding method suitable for both still and motion image data. *Riek* teaches that it was known to encode a sequence of still pictures as MPEG pictures integrated within a motion picture sequence. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the encoder of Kato to record still pictures containing sound as inter pictures as with motion pictures containing sound, as taught by *Riek*, since *Riek* states in column 3: lines 1–59 that such a modification would allow for high quality still images to be encoded within a motion image at a relatively low bit rate taking advantage of the inter-picture coding techniques of MPEG.

However, while the present invention is directed to multiplexing an encoded picture signal and an encoded audio signal, Hashimoto does not give details of its process of "combining" a video file and an audio file (column 11: lines 34-42), and *Riek* does not discuss multiplexing still or moving images with sound.

MPEG-1 Part 1 defines the system coding layer of an MPEG-1 coded data stream, in which audio and video data streams are multiplexed (forward). Regarding claims 11, 35, and 52, Section 1-A.6.3 illustrates a sample multiplexing of a stream having one video and one audio stream. The stream is divided into packs, each of which has a header and three packets, each of 2048 bytes. Section 1-A.6.5 illustrates the distribution of frames into the packs, with a first pack typically encoding I, P, and B picture data and a second pack typically encoding P and B picture data in conventional GOP structure and video of average complexity. First, 13 video packets are transmitted to ensure successful buffering. Then, an audio packet is placed for every 6.25 video packets. Section 1-A.6.9 shows an extended sample multiplexed data stream. Here, a second audio packet is placed between the twentieth and twenty-first video packets. However, while in the shown example, one audio packet is placed for multiple video packets, the examiner takes Official Notice that it was known in the art for audio and video packets to be correlated in a 1:1 ratio, as in the "locked audio" of DV, in which one audio pack is present for each frame. See for example European Patent Application Publication 843,470 A1 (*Tanaka*), column 2, lines 34–42. *Tanaka* describes a video signal comprising video data and audio data. In a "lock mode", a number of audio samples are fixed for each frame or a unit of frames. Such a modification would ease linear editing to prevent mismatches between audio and video data streams at a start point or an end point of an edited segment.

Hashimoto, in combination with *Kato* and *Riek*, discloses the claimed invention except for multiplexing an audio and picture signal. MPEG-1 Part 1 teaches that it was

known to produce a multimedia datastream by multiplexing packets of audio and video data. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the combination of a video and audio file in Hashimoto et al. as a multiplexing operation, as taught by MPEG-1 Part 1, since MPEG-1 Part 1 states in the Introduction that such a modification would allow for synchronized playback of audio and video data without having to buffer an entire sub-stream.

Regarding claims 12 and 53, in *Kato*, “the JPEG standard is used in the still image compression and the MPEG standard is used in the moving image compression” (column 9: lines 12-14).

Regarding claims 14 and 55, figure 12 of Hashimoto et al. shows video files and audio files stored in separate areas of memory card 16.

Regarding claims 15 and 56, in Kato, as mentioned previously, video data is first stored in first memory 20 and then transferred to second memory 22 (column 3: lines 54-63). This corresponds with writing multiplexed data to memory, reading the multiplexed data from memory, and recording multiplexed data on a recording medium. Additionally, in Kato, during the recording of a moving image, a still image from the sequence of moving images may be additionally transferred from the first memory to the second memory as an intra picture in an independent process of the moving picture recording (column 4: lines 1-10). This corresponds with encoding a video signal in the

"first" encoding method, writing the signal to the memory, reading the signal from the memory, and recording the signal to the recording medium.

Regarding claims 16 and 57, figure 5 of Kato shows a compressed video encoder including DCT circuit 107, quantizing circuit 108, and variable length coding circuit 115 (column 5: line 60–column 6: line 24).

Regarding claims 17 and 58, figure 12 of Hashimoto et al. illustrates audio and video files stored in the memory as having headers.

Regarding claims 19 and 60, an MPEG-1 pack, containing 3 packets, is designed to have a pack rate of 29 Hz, or 1 frame per pack (Section 1-A.6.3).

Regarding claims 20 and 61, Kato temporarily stores incoming data on first memory 20, and after re-encoding, permanently stores the data on second memory 22 (column 4: lines 45-55, “the second memory 22 is the final storage medium”).

Regarding claims 23 and 64, in Hashimoto et al., image data compression circuit 12 may also perform image decoding (column 6: lines 62-66), and so corresponds with the claimed “video decoding means”. The decoded video signals may be further processed in DSP 11 (column 6: lines 58-61), which outputs a video signal 26 to a display such as an LCD viewfinder (not shown in figure 8). This display corresponds with the claimed "displaying means”. Digital audio signals may also be decoded in audio data compression/expansion circuit, transmitted to D/A converter, amplified and filtered in amplifier 2b, and output in output stream 26 to speaker 32 (column 5: lines 17-39). This corresponds with the claimed “audio outputting means”. This process of reading data stored in memory card 16 (column 7: lines 34-50), like all other processes

of the camera of Hashimoto et al., is controlled by CPU 23 (column 7: lines 15-16), which corresponds with the claimed "controlling means".

Regarding claims 24 and 65, the CCD in Hashimoto et al. has a resolution of 768 x 480 pixels (column 6: line 44), and Kato inputs images at a resolution of 720 x 480 pixels, in accordance with the NTSC standard (column 4: line 15), and produces an output of 320 x 240 pixels (column 4: line 24), in accordance with the CIF format. Although neither Hashimoto et al. nor Kato et al. record pictures at the VGA 640 x 480 pixel standard, it would have been an obvious matter of design choice to modify the image sensing portion of camera of Hashimoto et al. or of Kato to produce 640 x 480 pictures, since it has been held that a change in size of a component is generally recognized as being within the level of ordinary skill in the art. See *In re Rose*, 105 USPQ 237 (CCPA 1955).

Regarding claim 49, in Kato, as shown in figure 1, system control circuit 26 controls both the image compression circuit 18, first memory 20, and second memory 22 (column 3: lines 41-63). This system control circuit corresponds with the claimed “controlling means”.

Regarding claims 50 and 67, in Hashimoto et al., incoming image data from a camera is processed in noise reduction circuit 10 and DSP 11 (column 6: lines 40-61), and incoming audio data from a microphone is processed in amplifier/filter 3a (column 6: lines 18-21).

Regarding claims 51 and 68, in Hashimoto et al., figure 14 illustrates the flowchart for transmitting and receiving data from the camera to an external device

(column 10: line 41–column 11: line 42). Data from the memory card is transferred to FIFO 13 (column 11: lines 25-29), and transmitted to an external device via interface circuit 27 (column 7: lines 1-36). Like every other process in the camera of Hashimoto et al., this process is controlled by CPU 23 (column 7: lines 15-16), which corresponds with the claimed "controlling means".

Regarding claims 69 and 70, in Kato, digital signal processor circuit 14 corresponds with the claimed "first picture encoder" that performs the step of receiving a picture signal. In Hashimoto et al., audio data compression circuit 3 corresponds with the claimed "second encoder" that performs the step of receiving an audio signal. In Kato, image compression circuit 18, as modified by Riek et al., corresponds with the claimed "picture generation" that performs the claimed step of "generating fixed data". In Hashimoto et al., FIFO 13, which combines audio files and image files (column 11: lines 43-61), corresponds with the claimed "third encoder" that performs the claimed step of "multiplexing".

7. Claims 21, 22, 62, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. in view of Kato, Riek et al., and MPEG-1 as applied to claims 11 and 52 above, and further in view of US Patent 6,327,423 B1 (Ejima et al.). Claims 21, 22, 62, and 63 are directed to specific operations of causing a camera to perform an audio capture for a certain time. Hashimoto et al. teaches taking pictures when a shutter button is pressed (column 7: lines 20-24), Kato teaches operating a keyboard to issue image taking commands (column 3: lines 41-53), and Riek et al.

teaches recording a still image while a still select button is depressed (column 4: lines 41–50). However, the above references do not teach operation for a time period to encode audio data.

Ejima et al. teaches a camcorder that records sound data. Regarding claims 21 and 62, figure 14 is a flowchart illustrating one embodiment of the sound recording control process of Ejima et al. At step S1, CPU 39 determines if a release switch 10 is pressed, and if it is, the image recording process begins at step S2 (column 15: line 64–column 16: line 3). At step S3, the sound recording process is started, and at step S4, a "REC" display is shown on a viewfinder to indicate that sound is being recorded (column 16: lines 4-11). At step S5, after 10 seconds have passed, the sound recording process stops (column 16: lines 11-16, 34-40). However, if a sound recording switch is pressed within 10 seconds at step S6, sound recording continues (column 16: lines 14-23, 44-50). The sound recording then ends when the sound recording switch is released at step S20 (column 16: lines 23-50). Then, sound recording switch 12 corresponds with the claimed "operating means", and the time period in which the sound recording switch is pressed corresponds with the claimed "timing means".

Hashimoto et al., in combination with Kato, Riek et al., and MPEG-1, discloses the claimed invention except for encoding audio during the pressing of an operation means. Ejima et al. teaches that it was known to perform sound recording while a sound recording switch is pressed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the sound recording switch of Ejima et al. into the camera of Hashimoto et al. or Kato, since

Ejima et al. states in column 1: line 60–column 2: line 20 that such a modification would allow the timing of a sound recording to be independent of the timing of its associated video recording.

Regarding claims 22 and 63, in *Kato*, if sound recording switch 12 is not pressed, then release switch 10 corresponds with the claimed "operating means", and the ten seconds is the "predetermined time period" in which audio is encoded.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Werner whose telephone number is (571)272-9662. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. N. W./
Examiner, Art Unit 2621

/Mehrdad Dastouri/
Supervisory Patent Examiner, Art Unit 2621